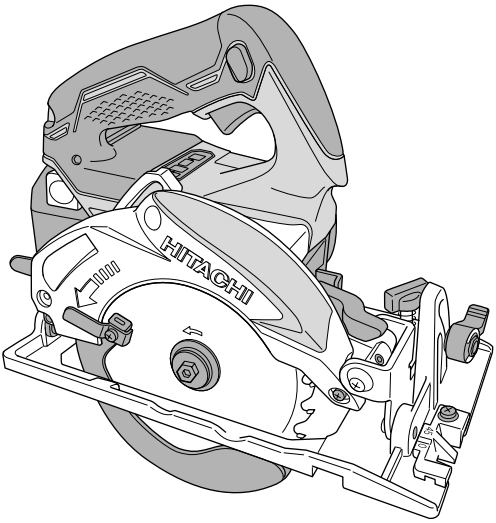
HITACHI

Cordless Circular Saw
Model C 18DBL

Handling instructions



Note:
Before using this Power Tool, carefully read through these HANDLING INSTRUCTIONS to ensure efficient, safe operation. It is recommended that these INSTRUCTIONS be kept readily available as an important reference when using this power tool.

Hitachi Koki

GENERAL POWER TOOL SAFETY WARNINGS

⚠ WARNING

Read all safety warnings and all instructions.
Failure to follow the warnings and instructions may result in electric shock, fire and/or serious injury.

Save all warnings and instructions for future reference.
The term "power tool" in the warnings refers to your mains-operated (corded) power tool or battery-operated (cordless) power tool.

1) Work area safety

a) Keep work area clean and well lit.
Cluttered or dark areas invite accidents.

b) Do not operate power tools in explosive atmospheres, such as in the presence of flammable liquids, gases or dust.
Power tools create sparks which may ignite the dust or fumes.

c) Keep children and bystanders away while operating a power tool.
Distractions can cause you to lose control.

2) Electrical safety

a) Power tool plugs must match the outlet. Never modify the plug in any way. Do not use any adapter plugs with earthed (grounded) power tools.
Unmodified plugs and matching outlets will reduce risk of electric shock.

b) Avoid body contact with earthed or grounded surfaces, such as pipes, radiators, ranges and refrigerators.
There is an increased risk of electric shock if your body is earthed or grounded.

c) Do not expose power tools to rain or wet conditions.
Water entering a power tool will increase the risk of electric shock.

d) Do not abuse the cord. Never use the cord for carrying, pulling or unplugging the power tool. Keep cord away from heat, oil, sharp edges or moving parts.
Damaged or entangled cords increase the risk of electric shock.

e) When operating a power tool outdoors, use an extension cord suitable for outdoor use.
Use of a cord suitable for outdoor use reduces the risk of electric shock.

f) If operating a power tool in a damp location is unavoidable, use a residual current device (RCD) protected supply.
Use of an RCD reduces the risk of electric shock.

3) Personal safety

a) Stay alert, watch what you are doing and use common sense when operating a power tool. Do not use a power tool while you are tired or under the influence of drugs, alcohol or medication.
A moment of inattention while operating power tools may result in serious personal injury.

b) Use personal protective equipment. Always wear eye protection.
Protective equipment such as dust mask, non-skid safety shoes, hard hat, or hearing protection used for appropriate conditions will reduce personal injuries.

c) Prevent unintentional starting. Ensure the switch is in the off position before connecting to power source and/or battery pack, picking up or carrying the tool.
Carrying power tools with your finger on the switch or energising power tools that have the switch on invites accidents.

d) Remove any adjusting key or wrench before turning the power tool on.
A wrench or a key left attached to a rotating part of the power tool may result in personal injury.

e) Do not overreach. Keep proper footing and balance at all times.
This enables better control of the power tool in unexpected situations.

f) Dress properly. Do not wear loose clothing or jewellery. Keep your hair, clothing and gloves away from moving parts.
Loose clothes, jewellery or long hair can be caught in moving parts.

g) If devices are provided for the connection of dust extraction and collection facilities, ensure these are connected and properly used.
Use of dust collection can reduce dust related hazards.

4) Power tool use and care

a) Do not force the power tool. Use the correct power tool for your application.
The correct power tool will do the job better and safer at the rate for which it was designed.

b) Do not use the power tool if the switch does not turn it on and off.
Any power tool that cannot be controlled with the switch is dangerous and must be repaired.

c) Disconnect the plug from the power source and/or the battery pack from the power tool before making any adjustments, changing accessories, or storing power tools.
Such preventive safety measures reduce the risk of starting the power tool accidentally.

d) Store idle power tools out of the reach of children and do not allow persons unfamiliar with the power tool or these instructions to operate the power tool.
Power tools are dangerous in the hands of untrained users.

e) Maintain power tools. Check for misalignment or binding of moving parts, breakage of parts and any other condition that may affect the power tools operation.
If damaged, have the power tool repaired before use.
Many accidents are caused by poorly maintained power tools.

f) Keep cutting tools sharp and clean.
Properly maintained cutting tools with sharp cutting edges are less likely to bind and are easier to control.

g) Use the power tool, accessories and tool bits etc. in accordance with these instructions, taking into account the working conditions and the work to be performed.
Use of the power tool for operations different from those intended could result in a hazardous situation.

5) Battery tool use and care

a) Recharge only with the charger specified by the manufacturer.
A charger that is suitable for one type of battery pack may create a risk of fire when used with another battery pack.

b) Use power tools only with specifically designated battery packs.
Use of any other battery packs may create a risk of injury and fire.

c) When battery pack is not in use, keep it away from other metal objects like paper clips, coins, keys, nails, screws, or other small metal objects that can make a connection from one terminal to another.
Shorting the battery terminals together may cause burns or a fire.

d) Under abusive conditions, liquid may be ejected from the battery; avoid contact. If contact accidentally occurs, flush with water. If liquid contacts eyes, additionally seek medical help.
Liquid ejected from the battery may cause irritation or burns.

6) Service

a) Have your power tool serviced by a qualified repair person using only identical replacement parts.
This will ensure that the safety of the power tool is maintained.

PRECAUTION
Keep children and infirm persons away.
When not in use, tools should be stored out of reach of children and infirm persons.

CIRCULAR SAW SAFETY WARNINGS

Cutting procedures

a) ⚠ DANGER: Keep hands away from cutting area and the blade. Keep your second hand on auxiliary handle, or motor housing.
If both hands are holding the saw, they cannot be cut by the blade.

b) Do not reach underneath the workpiece.
The guard cannot protect you from the blade below the workpiece.

c) Adjust the cutting depth to the thickness of the workpiece.
Less than a full tooth of the blade teeth should be visible below the workpiece.

d) Never hold piece being cut in your hands or across your leg. Secure the workpiece to a stable platform.
It is important to support the work properly to minimize body exposure, blade binding, or loss of control.

e) Hold the power tool by insulated gripping surfaces only, when performing an operation where the cutting tool may contract hidden wiring.
Contact with a "live" wire will also make exposed metal parts of the power tool "live" and could give the operator an electric shock.

f) When ripping always use a rip fence or straight edge guide.
This improves the accuracy of cut and reduces the chance of blade binding.

g) Always use blades with correct size and shape (diamond versus round) of arbour holes.
Blades that do not match the mounting hardware of the saw will run eccentrically, causing loss of control.

h) Never use damaged or incorrect blade washers or bolt.
The blade washers and bolt were specially designed for your saw, for optimum performance and safety of operation.

Kickback causes and related warnings

– kickback is a sudden reaction to a pinched, bound or misaligned saw blade, causing an uncontrolled saw to lift up and out of the workpiece toward the operator;
– when the blade is pinched or bound tightly by the kerf closing down, the blade stalls and the motor reaction drives the unit rapidly back toward the operator;
– if the blade becomes twisted or misaligned in the cut, the teeth at the back edge of the blade can dig into the top surface of the wood causing the blade to climb out of the kerf and jump back toward the operator.

Kickback is the result of saw misuse and/or incorrect operating procedures or conditions and can be avoided by taking proper precautions as given below.

a) Maintain a firm grip with both hands on the saw and position your arms to resist kickback forces. Position your body to either side of the blade, but not in line with the blade.
Kickback could cause the saw to jump backwards, but kickback forces can be controlled by the operator, if proper precautions are taken.

b) When blade is binding, or when interrupting a cut for any reason, release the trigger and hold the saw motionless in the material until the blade comes to a complete stop.
Never attempt to remove the saw from the work or pull the saw backward while the blade is in motion or kickback may occur.
Investigate and take corrective actions to eliminate the cause of blade binding.

c) When restarting a saw in the workpiece, centre the saw blade in the kerf and check that saw teeth are not engaged into the material.
If saw blade is binding, it may walk up or kickback from the workpiece as the saw is restarted.

d) Support large panels to minimise the risk of blade pinching and kickback.
Large panels tend to sag under their own weight. Supports must be placed under the panel on both sides, near the line of cut and near the edge of the panel.

e) Do not use dull or damaged blades.
Unsharpened or improperly set blades produce narrow kerf causing excessive friction, blade binding and kickback.

f) Blade depth and bevel adjusting locking levers must be tight and secure before making cut.
If blade adjustment shifts while cutting, it may cause binding and kickback.

g) Use extra caution when sawing into existing walls or other blind areas.
The protruding blade may cut objects that can cause kickback.

Lower guard function

a) Check lower guard for proper closing before each use. Do not operate the saw if lower guard does not move freely and close instantly. Never clamp or tie the lower guard into the open position.
If saw is accidentally dropped, lower guard may be bent.
Raise the lower guard with the retracting handle and make sure it moves freely and does not touch the blade or any other part, in all angles and depths of cut.

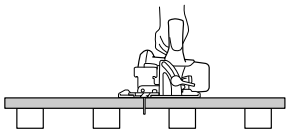
b) Check the operation of the lower guard spring. If the guard and the spring are not operating properly, they must be serviced before use.
Lower guard may operate sluggishly due to damaged parts, gummy deposits, or a build-up of debris.

c) Lower guard may be retracted manually only for special cuts such as "plunge cuts" and "compound cuts". Raise lower guard by retracting handle and as soon as blade enters the material, the lower guard must be released.
For all other sawing, the lower guard should operate automatically.

d) Always observe that the lower guard is covering the blade before placing saw down on bench or floor.
An unprotected, coasting blade will cause the saw to walk backwards, cutting whatever is in its path. Be aware of the time it takes for the blade to stop after switch is released.

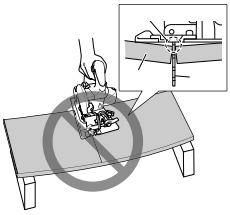
PRECAUTIONS ON USING CORDLESS CIRCULAR SAW

1. Always charge the battery at a temperature of 10 – 40°C. A temperature of less than 10°C will result in over charging which is dangerous. The battery cannot be charged at a temperature higher than 40°C.
   The most suitable temperature for charging is that of 20 – 25°C.
2. When one charging is completed, leave the charger for about 15 minutes before the next charging of battery.
   Do not charge more than two batteries consecutively.
3. Do not allow foreign matter to enter the hole for connecting the rechargeable battery.
4. Never disassemble the rechargeable battery and charger.
5. Never short-circuit the rechargeable battery. Short-circuiting the battery will cause a great electric current and overheat. It results in burn or damage to the battery.
6. Do not dispose of the battery in fire.
   If the battery is burnt, it may explode.
7. When using this unit continuously, the unit may overheat, leading to damage in the motor and switch. Please leave it without using it for approximately 15 minutes.
8. Do not insert object into the air ventilation slots of the charger.
   Inserting metal objects or inflammables into the charger air ventilation slots will result in electrical shock hazard or damaged charger.
9. Using an exhausted battery will damage the charger.
10. Bring the battery to the shop from which it was purchased as soon as the post-charging battery life becomes too short for practical use. Do not dispose of the exhausted battery.
11. Wear earplugs to protect your ears during operation.
12. Always hold the handle of the power tool firmly. Otherwise the counterforce produced may result in inaccurate and even dangerous operation.
13. Do not use saw blades which are deformed or cracked.
14. Do not use saw blades made of high speed steel.
15. Do not use saw blades which do not comply with the characteristics specified in these instructions.
16. Do not stop the saw blades by lateral pressure on the disc.
17. Always keep the saw blades sharp.
18. Ensure that the lower guard moves smoothly and freely.
19. Never use the circular saw with its lower guard fixed in the open position.
20. Ensure that the retraction mechanism of the guard system operates correctly.
21. The saw blades body must be thinner than the riving knife and the width of cut, or kerf (with teeth set) must be greater than the thickness of the riving knife.
22. Never operate the circular saw with the saw blade turned upward or the side.
23. Ensure that the material is free of foreign matters such as nails.
24. The riving knife should always be used except when plunging in the middle of the workpiece.
25. The saw blades diameter should be 125 mm.
26. Be careful of brake kickback.
    This circular saw features an electric brake that functions when the switch is released. As there is some kickback when the brake functions, be sure to hold the main body securely.
27. Avoid cutting in the state where the base has floated up from the material.
    When blade is binding, or when interrupting a cut for any reason, release the trigger and hold the saw motionless in the material until the blade comes to a complete stop. Never attempt to remove the saw from the work or pull the saw backward while the blade is in motion or KICKBACK may occur. Investigate and take corrective actions to eliminate the cause of blade binding.
28. Support large panels to minimize the risk of blade pinching and KICKBACK. Large panels tend to sag under their own weight (**Fig. 2**). Supports must be placed under the panel on both sides, near the line of cut and near the edge of the panel as shown in **Fig. 1**.
    To minimize the risk of blade pinching and kickback. When cutting operation requires the resting of the saw on the work piece, the saw shall be rested on the larger portion and the smaller piece cut off.



To avoid kickback, do support board or panel near the cut.

Fig. 1



Don't support board or panel away from the cut.

Fig. 2

29. Use extra caution when making a "Pocket Cut" into existing walls or other blind areas. The protruding blade may cut objects that can cause KICKBACK.
NEVER place your hand or fingers behind the saw (**Fig. 3**). If kickback occurs, the saw could easily jump backwards over your hand, possibly causing severe injury.

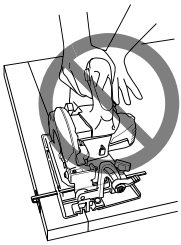


Fig. 3

30. **WARNING:** It is important to support the work piece properly and to hold the saw firmly to prevent loss of control which could cause personal injury. **Fig. 4** illustrates typical hand support of the saw.

A TYPICAL ILLUSTRATION OF PROPER HAND SUPPORT

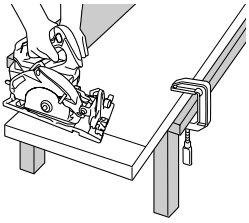


Fig. 4

31. Place the wider portion of the saw base on that part of the work piece which is solidly supported, not on the section that will fall off when the cut is made. As examples, **Fig. 5** illustrates the RIGHT way to cut off the end of board, and **Fig. 6** the WRONG way. If the work piece is short or small, clamp is down.
DON'T TRY TO HOLD SHORT PLACES BY HAND!

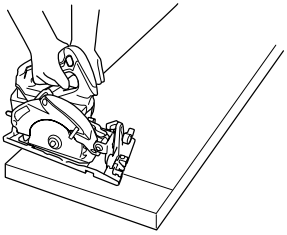


Fig. 5

Fig. 6

32. Never attempt to saw with the circular saw held upside down in a vise. This is extremely dangerous and can lead to serious accidents (**Fig. 7**).

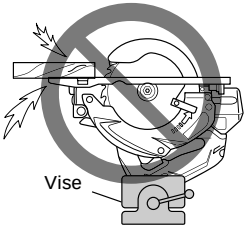


Fig. 7

CAUTION ON LITHIUM-ION BATTERY

To extend the lifetime, the lithium-ion battery equips with the protection function to stop the output.
In the cases of 1 to 3 described below, when using this product, even if you are pulling the switch, the motor may stop. This is not the trouble but the result of protection function.

1. When the battery power remaining runs out, the motor stops.
   In such case, charge it up immediately.
2. If the tool is overloaded, the motor may stop. In this case, release the switch of tool and eliminate causes of overloading. After that, you can use it again.
3. If the battery is overheated under overload work, the battery power may stop.
   In this case, stop using the battery and let the battery cool. After that, you can use it again.

Furthermore, please heed the following warning and caution.

WARNING

In order to prevent any battery leakage, heat generation, smoke emission, explosion and ignition beforehand, please be sure to heed the following precautions.

1. Make sure that swarf and dust do not collect on the battery.
○ During work make sure that swarf and dust do not fall on the battery.
○ Make sure that any swarf and dust falling on the power tool during work do not collect on the battery.
○ Do not store an unused battery in a location exposed to swarf and dust.
○ Before storing a battery, remove any swarf and dust that may adhere to it and do not store it together with metal parts (screws, nails, etc.).
2. Do not pierce battery with a sharp object such as a nail, strike with a hammer, step on, throw or subject the battery to severe physical shock.
3. Do not use an apparently damaged or deformed battery.
4. Do not use the battery in reverse polarity.
5. Do not connect directly to an electrical outlets or car cigarette lighter sockets.
6. Do not use the battery for a purpose other than those specified.
7. If the battery charging fails to complete even when a specified recharging time has elapsed, immediately stop further recharging.
8. Do not put or subject the battery to high temperatures or high pressure such as into a microwave oven, dryer, or high pressure container.
9. Keep away from fire immediately when leakage or foul odor are detected.
10. Do not use in a location where strong static electricity generates.
11. If there is battery leakage, foul odor, heat generated, discolored or deformed, or in any way appears abnormal during use, recharging or storage, immediately remove it from the equipment or battery charger, and stop use.

CAUTION

1. If liquid leaking from the battery gets into your eyes, do not rub your eyes and wash them well with fresh clean water such as tap water and contact a doctor immediately.
   If left untreated, the liquid may cause eye-problems.
2. If liquid leaks onto your skin or clothes, wash well with clean water such as tap water immediately.
   There is a possibility that this can cause skin irritation.
3. If you find rust, foul odor, overheating, discolor, deformation, and/or other irregularities when using the battery for the first time, do not use and return it to your supplier or vendor.

WARNING

If an electrically conductive foreign object enters the terminals of the lithium ion battery, a short-circuit may occur resulting in the risk of fire. Please observe the following matters when storing the battery.

○ **Do not place electrically conductive cuttings, nails, steel wire, copper wire or other wire in the storage case.**
○ **Either install the battery in the power tool or store by securely pressing into the battery cover until the ventilation holes are concealed to prevent short-circuits (See Fig. 9).**

SPECIFICATIONS

Power Tool

Model			C18DBL
No-load speed (Silent mode)			5000 (3000) /min
Capacity	Cutting depth	90°	47 mm
		45°	30 mm
Rechargeable battery			BSL1850: Li-ion 18 V (5.0 Ah, 10 cells)
Weight			2.5 kg

Charger

Model	UC18YFSL
Charging voltage	14.4 V – 18 V
Weight	0.5 kg

Electronic control

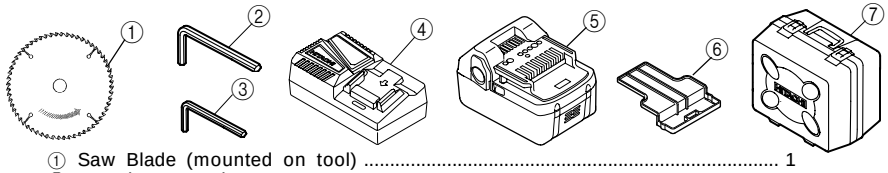
○ Soft-start
○ Overload protection
   This protection feature cuts off the power to the motor in the event of overloading of motor or a conspicuous reduction in rotational speed during operation.
   When the overload protection feature has been activated, the motor may stop.
   In this case, release the tool switch and eliminate causes of overloading.
   After that you can use it again.
○ Overheat protection
   This protection feature cuts off the power to the motor and stops the power tool in the event of overheating of motor during operation.
   When the overheat protection feature has been activated, the motor may stop.
   In this case, release the tool switch and cool it down in a few minutes.
   After that you can use it again.
○ Rotation speed changeover function (Power mode / Silent mode)
   (Power mode / Silent mode switch function)
   Each press of the Mode Selector Switch changes the operating mode.
   Silent mode reduces maximum motor RPM enabling efficient work with less noise.
   The Silent Mode Indicator Lamp lights in Silent mode.
   When the load increases during Silent mode, the tool will automatically switch to Power mode and revert back to Silent mode when the load decreases.
   In Power mode, no change is made to Silent mode even when the load decreases.

NOTE

○ To enable mode changes, pull the switch once after installing the battery.
○ Do not give a strong shock to the switch panel or break it. It may lead to a trouble.

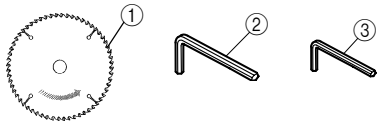
STANDARD ACCESSORIES

C18DBL (2LJRK)



① Saw Blade (mounted on tool) 1
② Hex. bar wrench 4 mm 1
③ Hex. bar wrench 2.5 mm 1
④ Charger (UC18YFSL) 1
⑤ Battery (BSL1850) 2
⑥ Battery cover 1
⑦ Plastic case 1

C18DBL (NN)

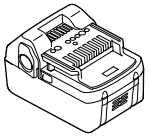


① Saw Blade (mounted on tool) 1
② Hex. bar wrench 4 mm 1
③ Hex. bar wrench 2.5 mm 1

Standard accessories are subject to change without notice.

OPTIONAL ACCESSORIES (sold separately)

1. Battery (BSL1830, BSL1840, BSL1850)



2. Saw Blade
   Use.....Cutting various types of wood.

External Diam	Hole Diam.	No. of Teeth
125 mm	20 mm	24 pieces

3. Dust Collection Adaptor
   The Dust Collection Adaptor collects sawdust when the vacuum cleaner is attached to the power tool.

(How to attach the Dust Collection Adaptor)

Attach the Dust Collection Adaptor to the power tool with the M4 screw (**Fig. 8**).

Connect the vacuum cleaner to the Dust Collection Adaptor.

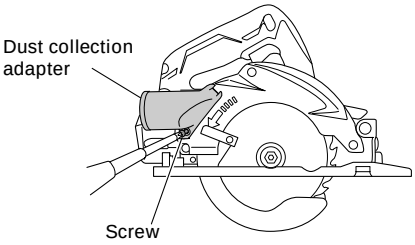


Fig. 8

Optional accessories are subject to charge without notice.

APPLICATION

Cutting various types of wood.

BATTERY REMOVAL/INSTALLATION

1. Battery removal
Hold the handle tightly and push the battery latches to remove the battery (see **Fig. 9, 10**).

CAUTION
Never short-circuit the battery.

2. Battery installation
Insert the battery while observing its polarities (see **Fig. 10**).

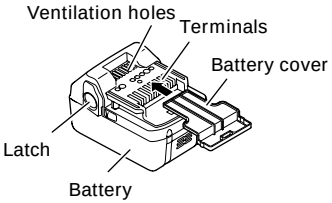


Fig. 9

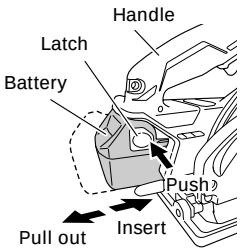


Fig. 10

CHARGING

Before using the power tool, charge the battery as follows.

1. **Connect the charger's power cord to a receptacle.**
   When the power cord is connected, the charger's pilot lamp will blink in red. (At 1-second intervals)
   CAUTION
   Do not use the electrical cord if damaged. Have it repaired immediately.
2. **Insert the battery into the charger.**
   Firmly insert the battery into the charger, as shown in **Fig. 11**.

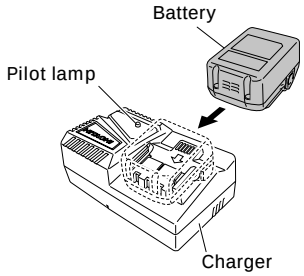


Fig. 11

3. **Charging**
   When inserting a battery in the charger, charging will commence and the pilot lamp will light continuously in red.
   When the battery becomes fully recharged, the pilot lamp will blink in red. (At 1-second intervals) (See **Table 1**)

(1) Pilot lamp indication
The indications of the pilot lamp will be as shown in **Table 1**, according to the condition of the charger or the rechargeable battery.

Table 1

Indications of the pilot lamp				
Pilot lamp (red)	Before charging	Blinks	Lights for 0.5 seconds. Does not light for 0.5 seconds. (off for 0.5 seconds)	
	While charging	Lights	Lights continuously	
	Charging complete	Blinks	Lights for 0.5 seconds. Does not light for 0.5 seconds. (off for 0.5 seconds)	
	Overheat standby	Blinks	Lights for 1 second. Does not light for 0.5 seconds. (off for 0.5 seconds)	Battery overheated. Unable to charge. (Charging will commence when battery cools)
	Charging impossible	Flickers	Lights for 0.1 seconds. Does not light for 0.1 seconds. (off for 0.1 seconds)	Malfunction in the battery or the charger

(2) Regarding the temperatures of the rechargeable battery
The temperatures for rechargeable batteries are as shown in **Table 2**, and batteries that have become hot should be cooled for a while before being recharged.

Table 2 Recharging ranges of batteries

Rechargeable batteries	Temperatures at which the battery can be recharged
BSL1820, BSL1830, BSL1840, BSL1850	0°C – 40°C

(3) Regarding recharging time
Depending on the combination of the charger and batteries, the charging time will become as shown in **Table 3**.

Table 3 Charging time (At 20°C)

Battery \ Charger	UC18YFSL
BSL1820	Approx. 30 min.
BSL1830	Approx. 45 min.
BSL1840	Approx. 60 min.
BSL1850	Approx. 75 min.

NOTE

The charging time may vary according to temperature and power source voltage.

CAUTION

When the battery charger has been continuously used, the battery charger will be heated, thus constituting the cause of the failures. Once the charging has been completed, give 15 minutes rest until the next charging.

4. Disconnect the charger's power cord from the receptacle.

5. Hold the charger firmly and pull out the battery.

NOTE

After operation, pull out batteries from the charger first, and then keep the batteries properly.

How to make the batteries perform longer

(1) Recharge the batteries before they become completely exhausted.
When you feel that the power of the tool becomes weaker, stop using the tool and recharge its battery. If you continue to use the tool and exhaust the electric current, the battery may be damaged and its life will become shorter.

(2) Avoid recharging at high temperatures.
A rechargeable battery will be hot immediately after use. If such a battery is recharged immediately after use, its internal chemical substance will deteriorate, and the battery life will be shortened. Leave the battery and recharge it after it has cooled for a while.

CAUTION

○ If the battery is charged while it is heated because it has been left for a long time in a location subject to direct sunlight or because the battery has just been used, the pilot lamp of the charger lights for 1 second, does not light for 0.5 seconds (off for 0.5 seconds). In such a case, first let the battery cool, then start charging.

○ When the pilot lamp flickers in red (at 0.2-seconds intervals), check for and take out any foreign objects in the charger's battery connector. If there are no foreign objects, it is probable that the battery or charger is malfunctioning. Take it to your authorized Service Center.

○ Since the built-in micro computer takes about 3 seconds to confirm that the battery being charged with UC18YFSL is taken out, wait for a minimum of 3 seconds before reinserting it to continue charging. If the battery is reinserted within 3 seconds, the battery may not be properly charged.

○ If the pilot lamp does not blink in red (every second) even though the charger cord is connected to the power, it indicates that the protection circuit of the charger may be activated.
Remove the cord from the power and then connect it again after 30 seconds or so. If this does not cause the pilot lamp to blink in red (every second), please take the charger to the Hitachi Authorized Service Center.

PRIOR TO OPERATION

1. Setting up and checking the work environment
Check if the work environment is suitable by following the precautions.

2. Prepare a wooden workbench (Fig. 12)
Since the saw blade will extend beyond the lower surface of the lumber, place the lumber on a workbench when cutting. If a square block is utilized as a workbench, select level ground to ensure it is properly stabilized. An unstable workbench will result in hazardous operation.

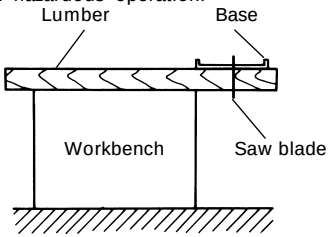


Fig. 12

CAUTION

To avoid possible accident, always ensure that the portion of lumber remaining after cutting is securely anchored or held in position.

ADJUSTING THE SAW PRIOR TO USE

CAUTION

Pull out battery before doing any adjusting.

1. Adjusting the cutting depth
As shown in **Fig. 13**, hold the handle with one hand while loosening the lever with the other.
The cutting depth can be adjusted by moving the base to the desired position. In such manner adjust the cutting depth and then securely retighten the lever.

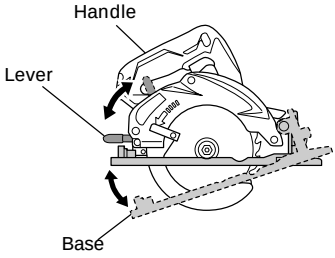


Fig. 13

2. Adjusting the angle of inclination
As shown in **Fig. 14** by loosening the clamp lever on the incline gauge, the saw blade may be inclined to a maximum angle of 45° in relation to the base. After having completed the adjustment, reconfirm that the clamp lever are firmly tightened.

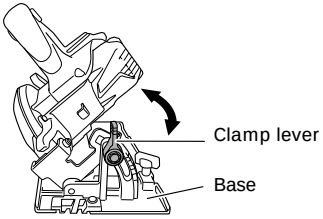


Fig. 14

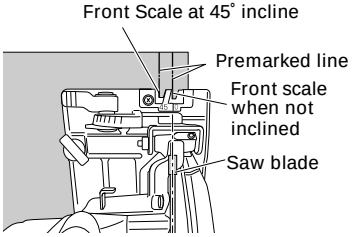


Fig. 15

NOTE

Values of the inclined gauge provided on the base merely serve as a rough guideline. For cutting operation at an inclined posture, use the circular saw after adjusting the angle between the base and the saw blade with a protractor, etc.

3. Regulating the guide (Fig. 16)

The cutting position can be regulated by moving the guide to the left or right after loosening its knob bolt. The guide may be mounted on either the right or left side of the tool.

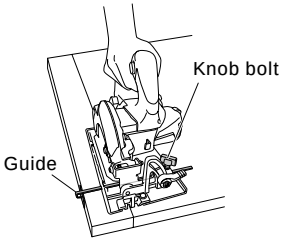


Fig. 16

4. Fine tuning of parallelism

It is possible to fine-tune the parallelism of the saw blade to the base using the parallelism adjustment screw.

Adjustment has already been made at the time of shipment from the factory. However, in the unlikely event of parallelism being faulty, adjust as follows.

(1) Unfasten only the mounting screws of the saw cover hinge portion (**Fig. 17**).

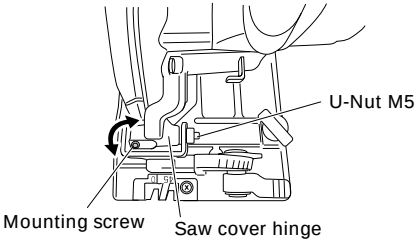


Fig. 17

(2) Retract the lower guard into the saw cover.

(3) Insert wood chip in the rear side of the saw blade base, and mark the position on the base (**Fig. 18**).

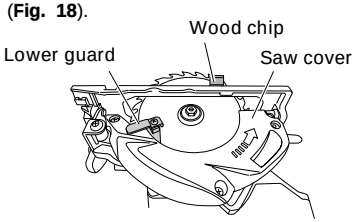


Fig. 18

(4) Move the marked wood chip to the front of the base, and turn the parallelism adjustment screw so that the marking corresponds to the base side (**Fig. 19**).

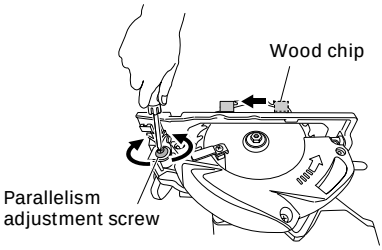


Fig. 19

NOTE

After parallelism adjustment, if the saw cover hinge portion is loose, tighten the M5 U-Nut. Do not over tighten the nut as this may result in deformation of the bevel plate.

(5) After adjustment, fasten the mounting screws tightly in place.

NOTE

Parallelism may be slightly faulty if the cutting depth is adjusted after parallelism adjustment.

5. Adjusting the guide piece

On the circular saw, it is possible to make fine adjustment of the fixing position of the guide piece, where the saw blade and the premarked line are to be aligned.

When the saw is shipped from the factory, the linear portion of a front scale on the guide piece is aligned with the central position of the saw blade (**Fig. 20**).

Loosen the fixed M4 screw on the guide piece, should the fixing position be wrong, and make necessary adjustment of the position.

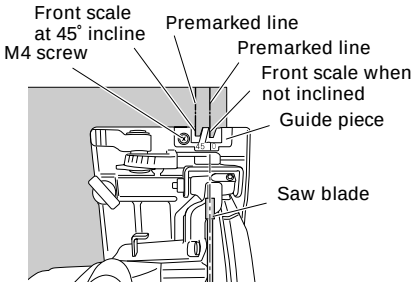


Fig. 20

HOW TO USE

1. Operation of switch (Fig. 21)
(switch trigger and light switch)

(1) For safe operation of the machine, a "switch lock" is provided on the side of a handle.
If the "switch trigger" is pulled in a state where "switch lock" is pressed in the direction of the arrow mark, the main switch can be turned ON. And the "switch lock" is used as the "light switch". If the "switch lock (light switch)" is pressed in a state, the light is turned ON.

(2) After the switch is turned ON, even when you release your hand from the switch lock, the body continues running and the light continues being turned ON as long as you keep on pulling the switch trigger.

(3) If you release the switch trigger, you can turn OFF the switch and the "switch lock" returns to the original position automatically and the light turns OFF too.

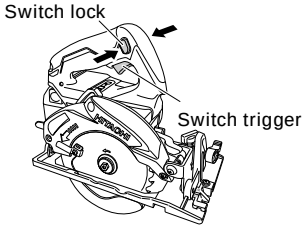


Fig. 21

CAUTION

○ Do not fix and secure the switch lock. Besides, keep your finger off the switch trigger when the circular saw is being carried around. Otherwise, the main body switch can be inadvertently turned ON, resulting in unexpected accidents.

○ Keep the light ON during cutting operation only. If it is lit ON in other cases, the main body switch can be inadvertently turned ON, resulting in unexpected accidents.

○ If the main body is left as it is with the battery inserted, there can be a case where the [switch lock] touches the floor and/or wall surface and lights up continuously, depending on the direction of the body. Be careful, since continuous lighting can easily make a full-charged battery go dead in about 3 hours.

2. About Remaining Battery Indicator

When pressing the remaining battery indicator switch, the remaining battery indicator lamp lights and the battery remaining power can be checked. (**Fig. 22**) When releasing your finger from the remaining battery indicator switch, the remaining battery indicator lamp goes off. The **Table 4** shows the state of remaining battery indicator lamp and the battery remaining power.

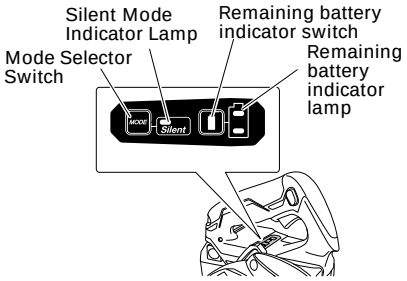


Fig. 22

Table 4

State of lamp	Battery Remaining Power
	The battery remaining power is enough.
	The battery remaining power is a half.
	The battery remaining power is nearly empty. Re-charge the battery soonest possible.

As the remaining battery indicator shows somewhat differently depending on ambient temperature and battery characteristics, read it as a reference.

NOTE

○ Do not give a strong shock to the switch panel or break it. It may lead to a trouble.

○ To save the battery power consumption, the remaining battery indicator lamp lights while pressing the remaining battery indicator switch.

3. Cutting procedures

CAUTION

○ Recheck that the saw blade is securely clamped.

○ Confirm that the wing nut for adjusting the slot depth, the wing bolt for adjusting the angle of inclination are securely clamped.

(1) Place the base on the material, then align the premarked line and the sawblade with the notch at the front of the base (**Fig. 15**).
When the base is not slanted, use the large cutout as the guide (**Fig. 15**, **Fig. 23**).

If the base is slanted (45 degrees), use the small front scale as the guide (**Fig. 15**, **Fig. 24**).

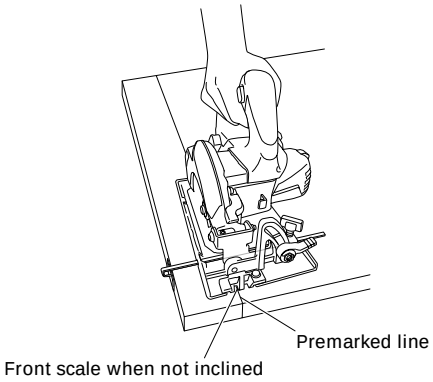


Fig. 23

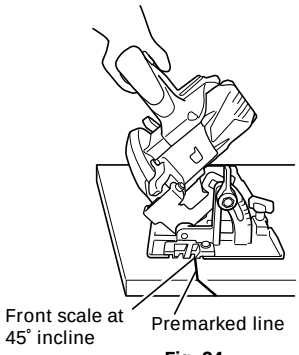


Fig. 24

(2) Ensure that the switch is turned to the ON position before the saw blade comes in contact with the lumber. The switch is turned ON when the trigger is squeezed; and OFF when the trigger is released. Moving the saw straight at a constant speed will produce optimum cutting.

CAUTION

- ○ Before starting to saw, ensure that the saw blade has reached full speed revolution.
- ○ Should the saw blade be stopped or made an abnormal noise during operation, turn off the switch immediately.
- ○ When finished with a job, pull out the battery from the main body.
- ○ Twisting and forcibly pressing the saw during cutting can result in unreasonable pressure on the motor, so try to go straight quietly.
- ○ In the situation where the circular saw is continuously operated while replacing the battery with stocked spare batteries one after another, the motor tends to overheat. Therefore, whenever the housing becomes hot, give the saw a break for a while.
- ○ Avoid cutting operation in a state where the base bottom is afloat from the material being cut. Otherwise, the motor can get locked.

MOUNTING AND DISMOUNTING THE SAW BLADE

CAUTION

To avoid serious accident, ensure the switch is in the OFF position, and pull out the battery.

1. Dismounting the saw blade

(1) Set the cutting volume at maximum, and place the Circular Saw as shown in **Fig. 25**.

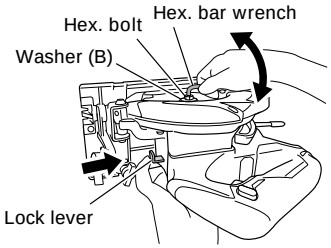


Fig. 25

(2) Depress the lock lever, lock the spindle, and remove the Hex. bolt and washer (B) with the hex. bar wrench.

(3) While holding the lower guard lever to keep the lower guard fully retracted into the saw cover, remove the saw blade (**Fig. 26**).

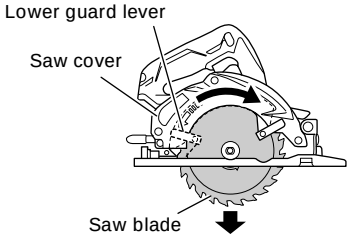


Fig. 26

2. Mounting the Saw Blade

CAUTION

If the hex. bolt is worked using other tools than the provided hex. bar wrench, excessive tightening and insufficient tightening may take place resulting in injury.

(1) Thoroughly remove any sawdust which has accumulated on the spindle, bolt and washers.

(2) As shown in **Fig. 27**, the side of Washer (A) with a projected center the same diameter as the inner diameter of the saw blade and the concave side of Washer (B) must be fitted to the saw blade sides.

(3) To assure proper rotation direction of the saw blade, the arrow direction on the saw blade must coincide with the arrow direction on the saw cover.

(4) Using the fingers, tighten the hex. bolt retaining the saw blade as much as possible. Then depress the lock lever, lock the spindle, and thoroughly tighten the hex. bolt.

CAUTION

After having attached the saw blade, reconfirm that the lock lever is firmly secured in the prescribed position.

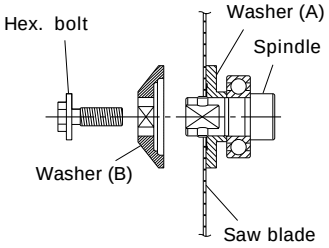


Fig. 27

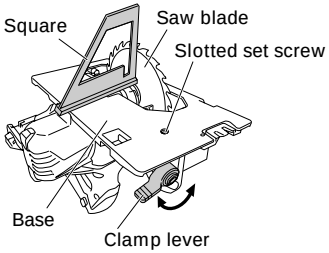


Fig. 28

MAINTENANCE AND INSPECTION

CAUTION

Pull out battery before doing any inspection or maintenance.

1. Inspecting the saw blade

Since use of a dull saw blade will degrade efficiency and cause possible motor malfunction, sharpen or replace the saw blade as soon as abrasion is noted.

CAUTION

If a dull saw blade is used, reactive force is increased during cutting operation. Avoid the use of the dull saw blade without repair.

2. Inspecting the mounting screws

Regularly inspect all mounting screws and ensure that they are properly tightened. Should any of the screws be loose, retighten them immediately. Failure to do so could result in serious hazard.

3. Maintenance of the motor

The motor unit winding is the very "heart" of the power tool.

Exercise due care to ensure the winding does not become damaged and/or wet with oil or water.

4. Performance checkup and maintenance of lower guard

Keep the lower guard in good shape for smooth performance at all times. Be sure to make prompt repair in case of any malfunction.

For safe and proper working, always keep the machine and ventilation slots clean. The lower guard must always be able to more freely and retract automatically. Therefore, always keep the area around the lower guard clean. Remove dust and chips by blowing out with compressed air or with a brush.

5. Adjusting the base and saw blade to maintain perpendicularity

The angle between the base and the saw blade has been adjusted to 90°, however should this perpendicularity be lost for some reason, adjust in the following manner:

(1) Turn the base face up (**Fig. 28**) and loosen the clamp lever.

(2) Apply a square to the base and the saw blade and turning the slotted set screw with a slotted-head screwdriver, shift the position of the base to produce the desired right angle.

6. Check for dust

Dust may be removed with a clean rag or a cloth dampened with soapy water.

Do not use bleach, chlorine, gasoline or thinner, for they may damage the plastics.

7. Storage

Storing in a place below 40°C and out of the reach of children.

NOTE

Make sure that the battery is fully charged when stored for a long period (3 months or more). The battery with smaller capacity may not be able to be charged when used, if stored for a long period.

NOTE

Storing lithium-ion batteries

Make sure the lithium-ion batteries have been fully charged before storing them.

Prolonged storage of batteries with a low charge may result in performance deterioration, significantly reducing battery usage time or rendering the batteries incapable of holding a charge.

However, significantly reduced battery usage time may be recovered by repeatedly charging and using the batteries two to five times.

If the battery usage time is extremely short despite repeated charging and use, consider the batteries dead and purchase new batteries.

8. Service and repairs

All quality power tools will eventually require servicing or replacement of parts because of wear from normal use. To assure that only genuine replacement parts must be used, all service and repairs must be performed by a HITACHI AUTHORIZED SERVICE CENTER, ONLY.

9. Service parts list

CAUTION

Repair, modification and inspection of Hitachi Power Tools must be carried out by a Hitachi Authorized Service Center.

This Parts List will be helpful if presented with the tool to the Hitachi Authorized Service Center when requesting repair or other maintenance.

In the operation and maintenance of power tools, the safety regulations and standards prescribed in each country must be observed.

MODIFICATION

Hitachi Power Tools are constantly being improved and modified to incorporate the latest technological advancements.

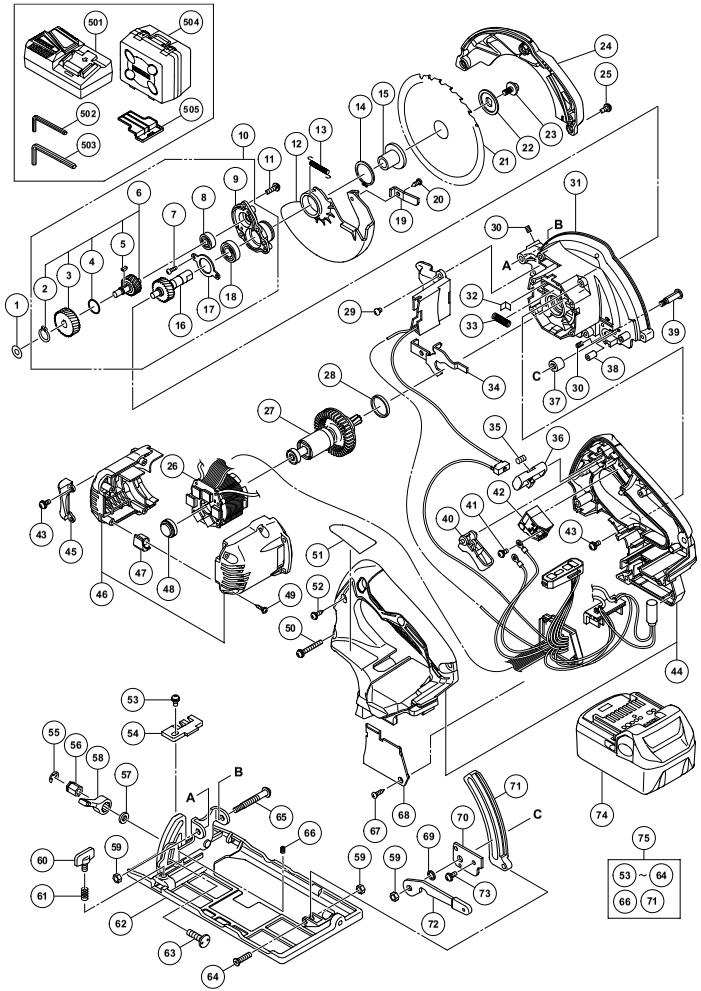
Accordingly, some parts may be changed without prior notice.

Important notice on the batteries for the Hitachi cordless power tools

Please always use one of our designated genuine batteries. We cannot guarantee the safety and performance of our cordless power tool when used with batteries other than these designated by us, or when the battery is disassembled and modified (such as disassembly and replacement of cells or other internal parts).

NOTE

Due to HITACHI's continuing program of research and development, the specifications herein are subject to change without prior notice.



Item No.	Part Name	Q'TY
1	WASHER (A)	1
2	RETAINING RING FOR D10 SHAFT	1
3	FIRST GEAR	1
4	O-RING (S-14)	1
5	WOODRUFF KEY	1
6	SECOND SHAFT ASS'Y (INCLUD.2-5)	1
7	MACHINE SCREW M3×8	3
8	BALL BEARING 606VVC2	1
9	BEARING HOLDER	1
10	BEARING HOLDER ASS'Y (INCLUD.6-9, 16-18)	1
11	MACHINE SCREW (W/SP. WASHER) M4×12	3
12	LOWER GUARD	1
13	RETURN SPRING	1
14	RETAINING RING FOR D22 SHAFT	1
15	WASHER (A)	1
16	SPINDLE GEAR ASS'Y	1
17	BEARING COVER	1
18	BALL BEARING 6900VVCMPS2L	1
19	KNOB	1
20	TAPPING SCREW D4×10	1
21	125MM SAW BLADE	1
22	WASHER (B)	1
23	HEX. BOLT (W/FLANGE) M5×14	1
24	SAW COVER	1
25	MACHINE SCREW (W/WASHERS) M4×12	3
26	STATOR FET PCB ASS'Y (INCLUD.41, 42)	1
27	ROTOR	1
28	RUBBER RING (A)	1
29	MACHINE SCREW M4×6	1
30	SEAL LOCK HEX. SOCKET SET SCREW M5×6	2
31	GEAR COVER	1
32	SPRING HOOK	1
33	SPRING	1
34	LOCK LEVER	1
35	SPRING	1
36	KNOB	1
37	CAM	1
38	LOCK SLEEVE	1
39	CAM SHAFT	1
40	TRIGGER	1
41	MACHINE SCREW (W/WASHER) M3.5×6	2

Item No.	Part Name	Q'TY
42	SWITCH	1
43	MACHINE SCREW (W/WASHERS) M4×14	5
44	HANDLE SET	1
45	FLOW GUIDE (C)	1
46	HOUSING SET	1
47	CUSION	2
48	RUBBER BUSHING	1
49	TAPPING SCREW (W/FLANGE) D3×20	4
50	MACHINE SCREW (W/WASHERS) M4×35	2
51	NAME PLATE	1
52	TAPPING SCREW (W/FLANGE) D4×16	3
53	MACHINE SCREW (W/WASHERS) M4×8	1
54	GUIDE PIECE	1
55	RETAINING RING (E-TYPE) FOR D8 SHAFT	1
56	SPECIAL NUT M6	1
57	WASHER M6	1
58	CLAMP LEVER	1
59	U-NUT M5	3
60	WING BOLT M6×18	1
61	SPRING	1
62	BASE (A)	1
63	BOLT (SQUARE) M6	1
64	SPECIAL BOLT	1
65	ADJUSTING SCREW (A)	1
66	SLOTTED HD. SET SCREW (SEAL LOCK) M6×8	1
67	TAPPING SCREW D3×12	1
68	CONTROLLER COVER	1
69	WAVE WASHER 8	1
70	COVER PLATE	1
71	LINK	1
72	LEVER	1
73	MACHINE SCREW (W/SP. WASHER) M4×8	1
74	BATTERY BSL1850 (INCLUD.505)	2
75	BASE ASS'Y (INCLUD.53-64, 66, 71)	1
501	CHARGER (MODEL UC18YFSL)	1
502	HEX.BAR WRENCH 2.5MM	1
503	HEX.BAR WRENCH 4MM	1
504	CASE	1
505	BATTERY COVER	1

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